

# WEST Search History

DATE: Tuesday, November 05, 2002

<u>Set Name</u> side by side	<u>Query</u>	<u>Hit Count</u>	<u>Set Name</u> result set
<i>DB=USPT,PGPB,JPAB,EPAB,DWPI; PLUR=YES; OP=OR</i>			
L5	L4 and l2	0	L5
L4	((514/1)!.CCLS. )	377	L4
L3	514/1.ccls	0	L3
L2	Gli1	18	L2
L1	Altaba-A\$.in.	2	L1

END OF SEARCH HISTORY

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\* \* \* \* \* Welcome to STN International \* \* \* \* \*

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America  
NEWS 2 Apr 08 "Ask CAS" for self-help around the clock  
NEWS 3 Apr 09 BEILSTEIN: Reload and Implementation of a New Subject Area  
NEWS 4 Apr 09 ZDB will be removed from STN  
NEWS 5 Apr 19 US Patent Applications available in IFICDB, IFIPAT, and IFIUDB  
NEWS 6 Apr 22 Records from IP.com available in CAPLUS, HCAPLUS, and ZCAPLUS  
NEWS 7 Apr 22 BIOSIS Gene Names now available in TOXCENTER  
NEWS 8 Apr 22 Federal Research in Progress (FEDRIP) now available  
NEWS 9 Jun 03 New e-mail delivery for search results now available  
NEWS 10 Jun 10 MEDLINE Reload  
NEWS 11 Jun 10 PCTFULL has been reloaded  
NEWS 12 Jul 02 FOREGE no longer contains STANDARDS file segment  
NEWS 13 Jul 22 USAN to be reloaded July 28, 2002;  
saved answer sets no longer valid  
NEWS 14 Jul 29 Enhanced polymer searching in REGISTRY  
NEWS 15 Jul 30 NETFIRST to be removed from STN  
NEWS 16 Aug 08 CANCERLIT reload  
NEWS 17 Aug 08 PHARMAMarketLetter(PHARMAML) - new on STN  
NEWS 18 Aug 08 NTIS has been reloaded and enhanced  
NEWS 19 Aug 19 Aquatic Toxicity Information Retrieval (AQUIRE)  
now available on STN  
NEWS 20 Aug 19 IFIPAT, IFICDB, and IFIUDB have been reloaded  
NEWS 21 Aug 19 The MEDLINE file segment of TOXCENTER has been reloaded  
NEWS 22 Aug 26 Sequence searching in REGISTRY enhanced  
NEWS 23 Sep 03 JAPIO has been reloaded and enhanced  
NEWS 24 Sep 16 Experimental properties added to the REGISTRY file  
NEWS 25 Sep 16 Indexing added to some pre-1967 records in CA/CAPLUS  
NEWS 26 Sep 16 CA Section Thesaurus available in CAPLUS and CA  
NEWS 27 Oct 01 CASREACT Enriched with Reactions from 1907 to 1985  
NEWS 28 Oct 21 EVENTLINE has been reloaded  
NEWS 29 Oct 24 BEILSTEIN adds new search fields  
NEWS 30 Oct 24 Nutraceuticals International (NUTRACEUT) now available on STN  
NEWS 31 Oct 25 MEDLINE SDI run of October 8, 2002  
  
NEWS EXPRESS October 14 CURRENT WINDOWS VERSION IS V6.01,  
CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP),  
AND CURRENT DISCOVER FILE IS DATED 01 OCTOBER 2002  
NEWS HOURS STN Operating Hours Plus Help Desk Availability  
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FILE 'HOME' ENTERED AT 14:55:14 ON 05 NOV 2002

=> file .gary

COST IN U.S. DOLLARS

SINCE FILE

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ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'MEDLINE' ENTERED AT 14:55:36 ON 05 NOV 2002

FILE 'CANCERLIT' ENTERED AT 14:55:36 ON 05 NOV 2002

FILE 'BIOSIS' ENTERED AT 14:55:36 ON 05 NOV 2002

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FILE 'SCISEARCH' ENTERED AT 14:55:36 ON 05 NOV 2002

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=> s altaba-a?/au

L1 70 ALTABA-A?/AU

=> s Gli1

L2 367 GLI1

=> s l1 and l2

L3 12 L1 AND L2

=> dup rem l3

PROCESSING COMPLETED FOR L3

L4 10 DUP REM L3 (2 DUPLICATES REMOVED)

=> d ibib abs 1-10

L4 ANSWER 1 OF 10 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

Full Text

ACCESSION NUMBER: 2001:530674 BIOSIS

DOCUMENT NUMBER: PREV200100530674

TITLE: Methods and materials for the diagnosis and treatment of sporadic basal cell carcinoma.

AUTHOR(S): **Altaba, Ariel Ruiz i (1)**

CORPORATE SOURCE: (1) New York, NY USA

ASSIGNEE: New York University

PATENT INFORMATION: US 6238876 May 29, 2001

SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (May 29, 2001) Vol. 1246, No. 5, pp. No  
 Pagination. e-file.

ISSN: 0098-1133.

DOCUMENT TYPE: Patent

LANGUAGE: English

AB Methods for detection of the onset or presence of sporadic basal cell carcinoma in an animal by measuring for elevated levels of ectopic expression of Gli1 in the animal's epidermal tissue sample suspected of harboring sporadic basal cell carcinoma.

L4 ANSWER 2 OF 10 SCISEARCH COPYRIGHT 2002 ISI (R)

Full Text

ACCESSION NUMBER: 2002:88822 SCISEARCH

THE GENUINE ARTICLE: 514JC

TITLE: The Sonic Hedgehog-Gli pathway regulates dorsal brain

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growth and tumorigenesis  
 AUTHOR: Dahmane N; Sanchez P; Gitton Y; Palma V; Sun T; Beyna M; Weiner H; **Altaba A R I (Reprint)**  
 CORPORATE SOURCE: NYU, Sch Med, Skirball Inst Biomol Med, Dev Genet Program, 540 1st Ave, New York, NY 10016 USA (Reprint); NYU, Sch Med, Skirball Inst Biomol Med, Dev Genet Program, New York, NY 10016 USA; NYU, Sch Med, Dept Cell Biol, New York, NY 10016 USA; NYU, Sch Med, Dept Neurosurg, New York, NY 10016 USA  
 COUNTRY OF AUTHOR: USA  
 SOURCE: DEVELOPMENT, (DEC 2001) Vol. 128, No. 24, pp. 5201-5212. Publisher: COMPANY OF BIOLOGISTS LTD, BIDDER BUILDING CAMBRIDGE COMMERCIAL PARK COWLEY RD, CAMBRIDGE CB4 4DL, CAMBS, ENGLAND. ISSN: 0950-1991.  
 DOCUMENT TYPE: Article; Journal  
 LANGUAGE: English  
 REFERENCE COUNT: 73

\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

AB The mechanisms that regulate the growth of the brain remain unclear. We show that Sonic hedgehog (Shh) is expressed in a layer-specific manner in the perinatal mouse neocortex and tectum, whereas the Gli genes, which are targets and mediators of SHH signaling, are expressed in proliferative zones. In vitro and in vivo assays show that SHH is a mitogen for neocortical and tectal precursors and that it modulates cell proliferation in the dorsal brain. Together with its role in the cerebellum, our findings indicate that SHH signaling unexpectedly controls the development of the three major dorsal brain structures. We also show that a variety of primary human brain tumors and tumor lines consistently express the GLI genes and that cyclopamine, a SHH signaling inhibitor, inhibits the proliferation of tumor cells. Using the in vivo tadpole assay system, we further show that misexpression of **GLI1** induces CNS hyperproliferation that depends on the activation of endogenous **GLI1** function. SHH-GLI signaling thus modulates normal dorsal brain growth by controlling precursor proliferation, an evolutionarily important and plastic process that is deregulated in brain tumors.

L4 ANSWER 3 OF 10 SCISEARCH COPYRIGHT 2002 ISI (R)

Full Text

ACCESSION NUMBER: 2001:424370 SCISEARCH  
 THE GENUINE ARTICLE: 433NA  
 TITLE: Wnt signals are targets and mediators of Gli function  
 AUTHOR: Mullor J L; Dahmane N; Sun T; **Altaba A R I (Reprint)**  
 CORPORATE SOURCE: NYU, Sch Med, Dev Genet Program, Skirball Inst, 540 1st Ave, New York, NY 10016 USA (Reprint); NYU, Sch Med, Dev Genet Program, Skirball Inst, New York, NY 10016 USA; NYU, Sch Med, Dept Cell Biol, New York, NY 10016 USA  
 COUNTRY OF AUTHOR: USA  
 SOURCE: CURRENT BIOLOGY, (15 MAY 2001) Vol. 11, No. 10, pp. 769-773. Publisher: CELL PRESS, 1100 MASSACHUSETTES AVE,, CAMBRIDGE, MA 02138 USA. ISSN: 0960-9822.  
 DOCUMENT TYPE: Article; Journal  
 LANGUAGE: English  
 REFERENCE COUNT: 30

\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

AB There is growing evidence that Gli proteins participate in the mediation of Hedgehog and FGF signaling in neural and mesodermal development. However, little is known about which genes act downstream of Gli proteins. Here we show the regulation of members of the Wnt family by Gli proteins in different contexts. Our findings indicate that Gli2

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regulates Wnt8 expression in the ventral marginal zone of the early frog embryo: activating Gli2 constructs induce ectopic Wnt8 expression in animal cap explants, whereas repressor forms inhibit its endogenous expression in the marginal zone. Using truncated Frizzled and dominant-negative Wnt constructs, we then show the requirement of at least two Wnt proteins, Wnt8 and Wnt11, for Gli2/3-induced posterior mesodermal development. Blocking Wnt signals, however, inhibits Gli2/3-induced morphogenesis, but not mesodermal specification, Gli2/3 may therefore normally coordinate the action of these two Wnt proteins, which regulate distinct downstream pathways. In addition, the finding that Gli1 consistently induces a distinct set of Wnt genes in animal cap explants and in skin tumors suggests that Wnt regulation by Gli proteins is general. Such a mechanism may link signals that induce Gli activity, such as retinoids and Hedgehogs, with Wnt function.

L4 ANSWER 4 OF 10 SCISEARCH COPYRIGHT 2002 ISI (R)

### Full Text

ACCESSION NUMBER: 2000:862496 SCISEARCH  
THE GENUINE ARTICLE: 372KF  
TITLE: Gli2 functions in FGF signaling during antero-posterior patterning  
AUTHOR: Brewster R; Mullor J L; **Altaba A R (Reprint)**  
CORPORATE SOURCE: NYU, SCH MED, SKIRBALL INST, DEV GENET PROGRAM, NEW YORK, NY 10016 (Reprint); NYU, SCH MED, SKIRBALL INST, DEV GENET PROGRAM, NEW YORK, NY 10016; NYU, SCH MED, DEPT CELL BIOL, NEW YORK, NY 10016  
COUNTRY OF AUTHOR: USA  
SOURCE: DEVELOPMENT, (OCT 2000) Vol. 127, No. 20, pp. 4395-4405.  
Publisher: COMPANY OF BIOLOGISTS LTD, BIDDER BUILDING  
CAMBRIDGE COMMERCIAL PARK COWLEY RD, CAMBRIDGE CB4 4DL, CAMBS, ENGLAND.  
ISSN: 0950-1991.  
DOCUMENT TYPE: Article; Journal  
FILE SEGMENT: LIFE  
LANGUAGE: English  
REFERENCE COUNT: 81

\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

AB Patterning along the anteroposterior (A-P) axis involves the interplay of secreted and transcription factors that specify cell fates in the mesoderm and neuroectoderm. While FGF and homeodomain proteins have been shown to play different roles in posterior specification, the network coordinating their effects remains elusive. Here we have analyzed the function of Gli zinc-finger proteins in mesodermal A-P patterning. We find that Gli2 is sufficient to induce ventroposterior development, functioning in the FGF-brachyury regulatory loop. Gli2 directly induces brachyury, a gene required and sufficient for mesodermal development, and Gli2 is in turn induced by FGF signaling. Moreover, the homeobox gene Xhox3, a critical determinant of posterior development, is also directly regulated by Gli2. Gli3, but not Gli1, has an activity similar to that of Gli2 and is expressed in ventroposterior mesoderm after Gli2. These findings uncover a novel function of Gli proteins, previously only known to mediate hedgehog signals, in the maintenance and patterning of the embryonic mesoderm. More generally, our results suggest a molecular basis for an integration of FGF and hedgehog inputs in Gli-expressing cells that respond to these signals.

L4 ANSWER 5 OF 10 SCISEARCH COPYRIGHT 2002 ISI (R)

### Full Text

ACCESSION NUMBER: 2000:846783 SCISEARCH  
THE GENUINE ARTICLE: 370KH  
TITLE: Expression of the vertebrate Gli proteins in Drosophila reveals a distribution of activator and repressor

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activities  
 AUTHOR: AzaBlanc P; Lin H Y; **Altaba A R I**; Kornberg T B (Reprint)  
 CORPORATE SOURCE: UNIV CALIF SAN FRANCISCO, DEPT BIOCHEM BIOPHYS, SAN FRANCISCO, CA 94143 (Reprint); UNIV CALIF SAN FRANCISCO, DEPT BIOCHEM BIOPHYS, SAN FRANCISCO, CA 94143; NYU, SCH MED, DEPT CELL BIOL, NEW YORK, NY 10016; NYU, SKIRBALL INST, DEV GENET PROGRAM, NEW YORK, NY 10016  
 COUNTRY OF AUTHOR: USA  
 SOURCE: DEVELOPMENT, (OCT 2000) Vol. 127, No. 19, pp. 4293-4301. Publisher: COMPANY OF BIOLOGISTS LTD, BIDDER BUILDING CAMBRIDGE COMMERCIAL PARK COWLEY RD, CAMBRIDGE CB4 4DL, CAMBS, ENGLAND. ISSN: 0950-1991.  
 DOCUMENT TYPE: Article; Journal  
 FILE SEGMENT: LIFE  
 LANGUAGE: English  
 REFERENCE COUNT: 44

\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

AB The Cubitus interruptus (Ci) and Gli proteins are transcription factors that mediate responses to Hedgehog proteins (Hh) in flies and vertebrates, respectively. During development of the Drosophila wing, Ci transduces the Hh signal and regulates transcription of different target genes at different locations. In vertebrates, the three Gli proteins are expressed in overlapping domains and are partially redundant. To assess how the vertebrate Glis correlate with Drosophila Ci, we expressed each in Drosophila and monitored their behaviors and activities. We found that each Gli has distinct activities that are equivalent to portions of the regulatory arsenal of Ci. Gli2 and Gli1 have activator functions that depend on Hh, Gli2 and Gli3 are proteolyzed to produce a repressor form able to inhibit hh expression. However, while Gli3 repressor activity is regulated by Hh, Gli2 repressor activity is not. These observations suggest that the separate activator and repressor functions of Ci are unevenly partitioned among the three Glis, yielding proteins with related yet distinct properties.

L4 ANSWER 6 OF 10 SCISEARCH COPYRIGHT 2002 ISI (R)

## Full Text

ACCESSION NUMBER: 1999:616705 SCISEARCH  
 THE GENUINE ARTICLE: 223BA  
 TITLE: Gli proteins encode context-dependent positive and negative functions: implications for development and disease  
 AUTHOR: **Altaba A R I (Reprint)**  
 CORPORATE SOURCE: NYU, SCH MED, SKIRBALL INST, DEV GENET PROGRAM, 540 1ST AVE, NEW YORK, NY 10016 (Reprint); NYU, SCH MED, DEPT CELL BIOL, NEW YORK, NY 10016  
 COUNTRY OF AUTHOR: USA  
 SOURCE: DEVELOPMENT, (JUL 1999) Vol. 126, No. 14, pp. 3205-3216. Publisher: COMPANY OF BIOLOGISTS LTD, BIDDER BUILDING CAMBRIDGE COMMERCIAL PARK COWLEY RD, CAMBRIDGE CB4 4DL, CAMBS, ENGLAND. ISSN: 0950-1991.  
 DOCUMENT TYPE: Article; Journal  
 FILE SEGMENT: LIFE  
 LANGUAGE: English  
 REFERENCE COUNT: 60

\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

AB Several lines of evidence implicate zinc finger proteins of the Gli family in the final steps of Hedgehog signaling in normal development and disease, C-terminally truncated mutant GLI3 proteins are also associated with human syndromes, but it is not clear whether these C-terminally truncated Gli proteins fulfil the same function as full-length ones. Here,

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structure-function analyses of Gli proteins have been performed using floor plate and neuronal induction assays in frog embryos, as well as induction of alkaline phosphatase (AP) in SHH-responsive mouse C3H10T1/2 (10T1/2) cells. These assays show that C-terminal sequences are required for positive inducing activity and cytoplasmic Localization, whereas N-terminal sequences determine dominant negative function and nuclear localization. Analyses of nuclear targeted Gli1 and Gli2 proteins suggest that both activator and dominant negative proteins are modified forms. In embryos and COS cells, tagged Gli cDNAs yield C-terminally deleted forms similar to that of Ci. These results thus provide a molecular basis for the human Polydactyly type A and Pallister-Hall Syndrome phenotypes, derived from the deregulated production of C-terminally truncated GLI3 proteins. Analyses of full-length Gli function in 10T1/2 cells suggest that nuclear localization of activating forms is a regulated event and show that only Gli1 mimics SHH in inducing AP activity. Moreover, full-length Gli3 and all C-terminally truncated forms act antagonistically whereas Gli2 is inactive in this assay. In 10T1/2 cells, protein kinase A (PKA), a known inhibitor of Hh signaling, promotes Gli3 repressor formation and inhibits Gli1 function. Together, these findings suggest a context-dependent functional divergence of Gli protein function, in which a cell represses Gli3 and activates Gli1/2 prevents the formation of repressor Gli forms to respond to Shh. Interpretation of Hh signals by Gli proteins therefore appears to involve a fine balance of divergent functions within each and among different Gli proteins, the misregulation of which has profound biological consequences.

L4 ANSWER 7 OF 10 SCISEARCH COPYRIGHT 2002 ISI (R)

### Full Text

ACCESSION NUMBER: 1998:542482 SCISEARCH

THE GENUINE ARTICLE: ZZ232

TITLE: Combinatorial Gli gene function in floor plate and neuronal inductions by sonic hedgehog

AUTHOR: **Altaba A R I (Reprint)**

CORPORATE SOURCE: NYU, MED CTR, SKIRBALL INST, DEV GENET PROGRAM, 540 1ST AVE, NEW YORK, NY 10016 (Reprint); NYU, MED CTR, DEPT CELL BIOL, NEW YORK, NY 10016

COUNTRY OF AUTHOR: USA

SOURCE: DEVELOPMENT, (JUN 1998) Vol. 125, No. 12, pp. 2203-2212.  
Publisher: COMPANY OF BIOLOGISTS LTD, BIDDER BUILDING  
CAMBRIDGE COMMERCIAL PARK COWLEY RD, CAMBRIDGE CB4 4DL,  
CAMBS, ENGLAND.  
ISSN: 0950-1991.

DOCUMENT TYPE: Article; Journal

FILE SEGMENT: LIFE

LANGUAGE: English

REFERENCE COUNT: 59

\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

AB Within the developing vertebrate nervous system, it is not known how progenitor cells interpret the positional information provided by inducing signals or how the domains in which distinct groups of neural cells differentiate are defined. Gli proteins may be involved in these processes. In the frog neural plate, we have previously shown that the zinc finger transcription factor Gli1 is expressed in midline cells and mediates the effects of Shh inducing floor plate differentiation. In contrast, Gli2 and Gli3 are expressed throughout the neural plate except for the midline. Here, it is shown that Gli3 and Shh repress each other whereas Gli2, like Gli1, is a target of Shh signaling. However, only Gli1 can induce the differentiation of floor plate cells. In addition, Gli2 and Gli3 repress the ectopic induction of floor plate cells by Gli1 in co-injection assays and inhibit endogenous floor plate differentiation. The definition of the floor plate domain, therefore, appears to be defined by the antagonizing activities of Gli2 and Gli3 on Gli1 function.

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Because both *Gli1* and *Gli2* are induced by Shh, these results establish a regulatory feedback loop triggered by Shh that restricts floor plate cells to the midline. We have also previously shown that the Gli genes induce neuronal differentiation and here it is shown that there is specificity to the types of neurons the Oh proteins induce. Only *Gli1* induces Nkx2.1/TTF-1(+) ventral forebrain neurons. Moreover, *Gli2* and *Gli3* inhibit their differentiation. In contrast, the differentiation of spinal motor neurons can be induced by the two ventrally expressed Gli genes, *Gli1* and *Gli2*, suggesting that *Gli2* directly mediates induction of motor neurons by Shh. In addition, *Gli3* inhibits motor neuron differentiation by *Gli2*. Thus, combinatorial Gli function may pattern the neural tube, integrating positional information and cell type differentiation.

L4 ANSWER 8 OF 10 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.DUPLICATE 1

### Full Text

ACCESSION NUMBER: 97245195 EMBASE  
DOCUMENT NUMBER: 1997245195  
TITLE: *Gli1* is a target of Sonic hedgehog that induces ventral neural tube development.  
AUTHOR: Lee J.; Platt K.A.; Censullo P.; **Altaba A.R.I.** July  
CORPORATE SOURCE: A.R.I. Altaba, The Skirball Institute, Developmental Genetics Program, NYU Medical Center, 540 First Avenue, New York, NY 10016, United States. [ria@saturn.med.nyu.edu](mailto:ria@saturn.med.nyu.edu)  
SOURCE: Development, (1997) 124/13 (2537-2552).  
Refs: 112  
ISSN: 0950-1991 CODEN: DEVPED  
COUNTRY: United Kingdom  
DOCUMENT TYPE: Journal; Article  
FILE SEGMENT: 021 Developmental Biology and Teratology  
022 Human Genetics  
LANGUAGE: English  
SUMMARY LANGUAGE: English

AB The vertebrate zinc finger genes of the Gli family are homologs of the *Drosophila* gene *cubitus interruptus*. In frog embryos, *Gli1* is expressed transiently in the prospective floor plate during gastrulation and in cells lateral to the midline during late gastrula and neurula stages. In contrast, *Gli2* and *Gli3* are absent from the neural plate midline with *Gli2* expressed widely and *Gli3* in a graded fashion with highest levels in lateral regions. In mouse embryos, the three Gli genes show a similar pattern of expression in the neural tube but are coexpressed throughout the early neural plate. Because *Gli1* is the only Gli gene expressed in prospective floor plate cells of frog embryos, we have investigated a possible involvement of this gene in ventral neural tube development. Here we show that Shh signaling activates *Gli1* transcription and that widespread expression of endogenous frog or human glioma *Gli1*, but not *Gli3*, in developing frog embryos results in the ectopic differentiation of floor plate cells and ventral neurons within the neural tube. Floor-plate-inducing ability is retained when cytoplasmic *Gli1* proteins are forced into the nucleus or are fused to the VP16 transactivating domain. Thus, our results identify *Gli1* as a midline target of Shh and suggest that it mediates the induction of floor plate cells and ventral neurons by Shh acting as a transcriptional regulator.

L4 ANSWER 9 OF 10 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.DUPLICATE 2

### Full Text

ACCESSION NUMBER: 97332893 EMBASE  
DOCUMENT NUMBER: 1997332893  
TITLE: Activation of the transcription factor *Gli1* and the sonic hedgehog signalling pathway in skin tumours.  
AUTHOR: Dahmane N.; Lee J.; Robins P.; Heller P.; **Altaba A.R.**  
CORPORATE SOURCE: A.R. Altaba, Skirball Institute, Developmental Genetics Program, New York University Medical Center, 540 First



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Avenue, New York, NY 10016, United States.  
ria@saturn.med.nyu.edu  
 SOURCE: Nature, (1997) 389/6653 (876-881). *Oct*  
 Refs: 29  
 ISSN: 0028-0836 CODEN: NATUAS  
 COUNTRY: United Kingdom  
 DOCUMENT TYPE: Journal; Article  
 FILE SEGMENT: 016 Cancer  
 022 Human Genetics  
 LANGUAGE: English  
 SUMMARY LANGUAGE: English  
 AB Sporadic basal cell carcinoma (BCC) is the most common type of malignant cancer in fair-skinned adults. Familial BCCs and a fraction of sporadic BCCs have lost the function of Patched (Ptc), a Sonic hedgehog (Shh) receptor that acts negatively on this signalling pathway. Overexpression of shh can induce BCCs in mice. Here we show that ectopic expression of the zinc-finger transcription factor *Gli1* in the embryonic frog epidermis results in the development of tumours that express endogenous *Gli1*. We also show that Shh and the Gli genes are normally expressed in hair follicles, and that human sporadic BCCs consistently express *Gli1* but not Shh or Gli3. Because *Gli1*, but not Gli3, acts as a target and mediator of Shh signalling, our results suggest that expression of *Gli1* in basal cells induces BCC formation. Moreover, loss of Ptc or overexpression of Shh cannot be the sole causes of *Gli1* induction and sporadic BCC formation, as they do not occur consistently. Thus any mutations leading to the expression of *Gli1* in basal cells are predicted to induce BCC formation.

L4 ANSWER 10 OF 10 SCISEARCH COPYRIGHT 2002 ISI (R)  
Full Text  
 ACCESSION NUMBER: 97:891461 SCISEARCH  
 THE GENUINE ARTICLE: YJ865  
 TITLE: Activation of the transcription factor *Gli1* and the Sonic hedgehog signalling pathway in skin tumours (vol 389, pg 876, 1997)  
 AUTHOR: Dahmane N (Reprint); Lee J; Robins P; Heller P; **Altaba A R I**  
 SOURCE: NATURE, (4 DEC 1997) Vol. 390, No. 6659, pp. 536-536.  
 Publisher: MACMILLAN MAGAZINES LTD, PORTERS SOUTH, 4 CRINAN ST, LONDON, ENGLAND N1 9XW.  
 ISSN: 0028-0836.  
 DOCUMENT TYPE: Errata; Journal  
 FILE SEGMENT: PHYS; LIFE; AGRI  
 LANGUAGE: English  
 REFERENCE COUNT: 1

=> d his

(FILE 'HOME' ENTERED AT 14:55:14 ON 05 NOV 2002)

FILE 'MEDLINE, CANCERLIT, BIOSIS, EMBASE, SCISEARCH' ENTERED AT 14:55:36 ON 05 NOV 2002

L1 70 S ALTABA-A?/AU  
 L2 367 S GLI1  
 L3 12 S L1 AND L2  
 L4 10 DUP REM L3 (2 DUPLICATES REMOVED)

=> s l2 and py<=1997  
 2 FILES SEARCHED...  
 3 FILES SEARCHED...  
 L5 18 L2 AND PY<=1997

# STN Columbus

=> dup rem 15  
 PROCESSING COMPLETED FOR L5  
 L6 8 DUP REM L5 (10 DUPLICATES REMOVED)

=> d ibib abs 1-8

L6 ANSWER 1 OF 8 MEDLINE DUPLICATE 1

## Full Text

ACCESSION NUMBER: 97359968 MEDLINE  
 DOCUMENT NUMBER: 97359968 PubMed ID: 9216996  
 TITLE: **Gli1** is a target of Sonic hedgehog that induces ventral neural tube development.  
 AUTHOR: Lee J; Platt K A; Censullo P; Ruiz i Altaba A  
 CORPORATE SOURCE: The Skirball Institute, Developmental Genetics Program and Department of Cell Biology, NYU Medical Center, New York, NY 10016, USA.  
 SOURCE: DEVELOPMENT, (1997 Jul) 124 (13) 2537-52.  
 Journal code: 8701744. ISSN: 0950-1991.  
 PUB. COUNTRY: ENGLAND: United Kingdom  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 OTHER SOURCE: GENBANK-U57454  
 ENTRY MONTH: 199708  
 ENTRY DATE: Entered STN: 19970813  
 Last Updated on STN: 19970813  
 Entered Medline: 19970807

AB The vertebrate zinc finger genes of the Gli family are homologs of the Drosophila gene cubitus interruptus. In frog embryos, **Gli1** is expressed transiently in the prospective floor plate during gastrulation and in cells lateral to the midline during late gastrula and neurula stages. In contrast, **Gli2** and **Gli3** are absent from the neural plate midline with **Gli2** expressed widely and **Gli3** in a graded fashion with highest levels in lateral regions. In mouse embryos, the three Gli genes show a similar pattern of expression in the neural tube but are coexpressed throughout the early neural plate. Because **Gli1** is the only Gli gene expressed in prospective floor plate cells of frog embryos, we have investigated a possible involvement of this gene in ventral neural tube development. Here we show that Shh signaling activates **Gli1** transcription and that widespread expression of endogenous frog or human glioma **Gli1**, but not **Gli3**, in developing frog embryos results in the ectopic differentiation of floor plate cells and ventral neurons within the neural tube. Floor-plate-inducing ability is retained when cytoplasmic **Gli1** proteins are forced into the nucleus or are fused to the VP16 transactivating domain. Thus, our results identify **Gli1** as a midline target of Shh and suggest that it mediates the induction of floor plate cells and ventral neurons by Shh acting as a transcriptional regulator.

L6 ANSWER 2 OF 8 MEDLINE DUPLICATE 2

## Full Text

ACCESSION NUMBER: 1998007978 MEDLINE  
 DOCUMENT NUMBER: 98007978 PubMed ID: 9349822  
 TITLE: Activation of the transcription factor **Gli1** and the Sonic hedgehog signalling pathway in skin tumours.  
 COMMENT: Erratum in: Nature 1997 Dec 4;390(6659):536  
 AUTHOR: Dahmane N; Lee J; Robins P; Heller P; Ruiz i Altaba A  
 CORPORATE SOURCE: The Skirball Institute, Department of Cell Biology, New York University Medical Center, New York 10016, USA.  
 SOURCE: NATURE, (1997 Oct 23) 389 (6653) 876-81.  
 Journal code: 0410462. ISSN: 0028-0836.  
 PUB. COUNTRY: ENGLAND: United Kingdom

# STN Columbus

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 199711  
 ENTRY DATE: Entered STN: 19971224  
 Last Updated on STN: 19990129  
 Entered Medline: 19971113

AB Sporadic basal cell carcinoma (BCC) is the most common type of malignant cancer in fair-skinned adults. Familial BCCs and a fraction of sporadic BCCs have lost the function of Patched (Ptc), a Sonic hedgehog (Shh) receptor that acts negatively on this signalling pathway. Overexpression of Shh can induce BCCs in mice. Here we show that ectopic expression of the zinc-finger transcription factor *Gli1* in the embryonic frog epidermis results in the development of tumours that express endogenous *Gli1*. We also show that Shh and the Gli genes are normally expressed in hair follicles, and that human sporadic BCCs consistently express *Gli1* but not Shh or Gli3. Because *Gli1*, but not Gli3, acts as a target and mediator of Shh signalling, our results suggest that expression of *Gli1* in basal cells induces BCC formation. Moreover, loss of Ptc or overexpression of Shh cannot be the sole causes of *Gli1* induction and sporadic BCC formation, as they do not occur consistently. Thus any mutations leading to the expression of *Gli1* in basal cells are predicted to induce BCC formation.

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## Full Text

ACCESSION NUMBER: 1998:121175 BIOSIS  
 DOCUMENT NUMBER: PREV199800121175  
 TITLE: Correction of PREVIEWS 99816116. Activation of the transcription factor *Gli1* and the sonic hedgehog signalling pathway in skin tumours. Replacement of abstract. Erratum published in Nature (London) Vol. 390. Iss. 6659. 1997. p. 536.  
 AUTHOR(S): Dahmane, N.; Lee, J.; Robins, P.; Heller, P.; Ruiz I Altaba, A. (1)  
 CORPORATE SOURCE: (1) Skirball Inst., Dev. Genet. Program, 540 First Ave., New York, NY 10016 USA  
 SOURCE: Nature (London), (Dec. 4, 1997) Vol. 390, No. 6659, pp. 876-881.  
 ISSN: 0028-0836.  
 DOCUMENT TYPE: Article; Article; Errata  
 LANGUAGE: English

AB Patients with basal cell nevus syndrome develop basal cell carcinomas (BCCs) early in life and carry mutations in the Patched gene, which encodes a receptor for the Sonic hedgehog ligand. These findings implicated the activation of the Sonic hedgehog signalling pathway in the familial or inherited form of BCC. However, the molecular mechanisms underlying the development of sporadic BCCs, the commonest form of skin cancer in fair-skinned adults with over a million cases a year worldwide, remained unknown. Now Dahmane et al. provide compelling evidence that virtually all sporadic BCCs have the Shh signalling pathway activated as determined by the expression of the zinc finger transcription factor *Gli1*, the final target and mediator of Shh signalling. The work predicts that any mutations that lead to the activation of this pathway in basal cells, and thus to *Gli1* transcription and function, will cause basal cell cancer. Moreover, work in model organisms shows that inappropriate expression of *Gli1* in the skin leads to the development of epidermal tumours. *Gli1* may thus be both a marker and cause of BCC formation, making prospects for early diagnosis and possible treatment of this widespread type of skin cancer feasible.

L6 ANSWER 4 OF 8 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.

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## Full Text

ACCESSION NUMBER: 1998007772 EMBASE  
 TITLE: Erratum: Activation of the transcription factor *Gli1* and the Sonic hedgehog signalling pathway in skin tumours (Nature (1997) 389 (876-881)).  
 AUTHOR: Dahmane N.; Lee J.; Robins P.; Heller P.; Ruiz A.A.  
 SOURCE: Nature, (1997) 390/6659 (536).  
 ISSN: 0028-0836 CODEN: NATUAS  
 COUNTRY: United Kingdom  
 DOCUMENT TYPE: Journal; Errata  
 FILE SEGMENT: 016 Cancer  
 LANGUAGE: English

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L6 ANSWER 5 OF 8 SCISEARCH COPYRIGHT 2002 ISI (R)

## Full Text

ACCESSION NUMBER: 97:891461 SCISEARCH  
 THE GENUINE ARTICLE: YJ865  
 TITLE: Activation of the transcription factor *Gli1* and the Sonic hedgehog signalling pathway in skin tumours (vol 389, pg 876, 1997)  
 AUTHOR: Dahmane N (Reprint); Lee J; Robins P; Heller P; Altaba A R I  
 SOURCE: NATURE, (4 DEC 1997) Vol. 390, No. 6659, pp. 536-536.  
 Publisher: MACMILLAN MAGAZINES LTD, PORTERS SOUTH, 4 CRINAN ST, LONDON, ENGLAND N1 9XW.  
 ISSN: 0028-0836.  
 DOCUMENT TYPE: Errata; Journal  
 FILE SEGMENT: PHYS; LIFE; AGRI  
 LANGUAGE: English  
 REFERENCE COUNT: 1

L6 ANSWER 6 OF 8 SCISEARCH COPYRIGHT 2002 ISI (R)

## Full Text

ACCESSION NUMBER: 97:617371 SCISEARCH  
 THE GENUINE ARTICLE: XH774  
 TITLE: Functional and molecular characterization of *Gli1* in mouse development  
 AUTHOR: Park H L (Reprint); Platt K; Joyner A L  
 CORPORATE SOURCE: NYU MED CTR, SKIRBALL INST, NEW YORK, NY 10016  
 COUNTRY OF AUTHOR: USA  
 SOURCE: DEVELOPMENTAL BIOLOGY, (15 JUN 1997) Vol. 186, No. 2, pp. B257-B257.  
 Publisher: ACADEMIC PRESS INC JNL-COMP SUBSCRIPTIONS, 525 B ST, STE 1900, SAN DIEGO, CA 92101-4495.  
 ISSN: 0012-1606.  
 DOCUMENT TYPE: Conference; Journal  
 FILE SEGMENT: LIFE  
 LANGUAGE: English  
 REFERENCE COUNT: 0

L6 ANSWER 7 OF 8 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

## Full Text

ACCESSION NUMBER: 1992:430615 BIOSIS  
 DOCUMENT NUMBER: BA94:82740  
 TITLE: ANALYSIS OF GLIA CELL DIFFERENTIATION IN THE DEVELOPING CHICK PERIPHERAL NERVOUS SYSTEM SENSORY AND SYMPATHETIC SATELLITE CELLS EXPRESS DIFFERENT CELL SURFACE ANTIGENS.  
 AUTHOR(S): RUEDEL C; ROHRER H  
 CORPORATE SOURCE: MAX-PLANCK-INST. HIRNFORSCHUNG, ABT. NEUROCHEM., DEUTSCHORDENSTRASSE 46, 6000 FRANKFURT/M. 71, GER.  
 SOURCE: DEVELOPMENT (CAMB), (1992) 115 (2), 519-526.  
 CODEN: DEVPED. ISSN: 0950-1991.

# STN Columbus

FILE SEGMENT: BA; OLD  
LANGUAGE: English

AB To identify and analyse precursor cells of neuronal and glial cell lineages during the early development of the chick peripheral nervous system, monoclonal antibodies were raised against a population of undifferentiated cells of E6 dorsal root ganglia (DRG). Non-neuronal cells of E6 DRG express surface antigens that are recognized by four monoclonal antibodies, G1, G2, **GLI1** and GLI2. The proportion of non-neuronal cells in DRG that express the GLI 1 antigen is very high during ganglion formation (80% at E4) and decreases during later development (15% at E14). GLI 2 antigen is expressed only on a minority of the cells at E6 and increases with development. The G1 and G2 antigens are expressed on about 60-80% of the cells between E6 and E14. All cells that express the established glia marker O4 are also positive for the new antigens. In addition, it was demonstrated that GLI 1-positive cells from early DRG, which are devoid of O4 antigen, could be induced in vitro to express the O4 antigen. Thus the antigen-positive cells are considered as glial cells or glial precursor cells. Surprisingly, the antigen expression by satellite cells of peripheral ganglia is dependent on the type of ganglion: antigens G1, G2 and **GLI1** were not detectable on glial cells of lumbosacral sympathetic ganglia and GLI2 was expressed only by a small subpopulation. These results demonstrate an early immunological difference between satellite cells of sensory DRG and sympathetic ganglia. As the antigens could however be induced in vitro also in sympathetic ganglion cells, it is suggested that the specific antigen expression is due to specific environmental cues acting on precursor cells in different types of ganglia rather than to intrinsic differences between sensory and sympathetic glial precursor cells.

L6 ANSWER 8 OF 8 MEDLINE DUPLICATE 3

## Full Text

ACCESSION NUMBER: 77153474 MEDLINE  
DOCUMENT NUMBER: 77153474 PubMed ID: 848131  
TITLE: Population genetics of glyoxalase I (E.C.4.4.1.5) in human erythrocytes.  
AUTHOR: Berg K; Rodewald A; Schwarzfischer F; Wischerath H  
SOURCE: ZEITSCHRIFT FUR RECHTSMEDIZIN. JOURNAL OF LEGAL MEDICINE, (1977 Jan 21) 79 (1) 13-5.  
Journal code: 0247437. ISSN: 0044-3433.  
PUB. COUNTRY: GERMANY, WEST: Germany, Federal Republic of  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 197705  
ENTRY DATE: Entered STN: 19900313  
Last Updated on STN: 19980206  
Entered Medline: 19770512

AB 1025 individuals from Southern Germany were examined. The gene frequencies for **GLI1** are 0.4235 and for GLI2 0.5765. These frequencies are compared with those of other authors.

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